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Liquidity Ratio and Financial Performance of Commercial Banks in Nigeria

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Abstract- ***This study examines the impact of the liquidity ratio on the financial performance of commercial banks in Nigeria from 1986 to 2024, a period marked by significant financial reforms and economic shifts. Against the backdrop of persistent volatility in bank profitability, the research investigates the dynamics between liquidity management, measured by the liquidity ratio (LQR), and bank performance, proxied by Bank Profit Margin (BPM). The study also incorporates interest rate spread (IRS) and inflation rate (INFR) as control variables to provide a comprehensive analysis. Employing an ex-post facto research design, the study utilized secondary data sourced from the Central Bank of Nigeria. The Autoregressive Distributed Lag (ARDL) bounds testing approach was adopted to analyze both short-run dynamics and long-run equilibrium relationships. The findings reveal a significant positive long-run relationship between the liquidity ratio and bank profitability, challenging the conventional view of a strict trade-off. Furthermore, interest rate spread was identified as the most potent driver of profitability, while inflation exhibited a modest positive effect. The study concludes that effective liquidity management, rather than being a mere cost, is a strategic imperative for enhancing bank profitability and stability in Nigeria. Based on these findings, the study recommends that commercial banks optimize their liquidity buffers, and that policymakers at the Central Bank of Nigeria implement measures to streamline intermediation costs to ensure interest rate spreads are conducive to both bank profitability and economic growth.***

Keywords: Liquidity Ratio, Financial Performance, Interest Rate Spread, Commercial Banks, ARDL, Nigeria

I. INTRODUCTION

1.1 Background to the Study

The stability and efficiency of the banking sector are fundamental to sustainable economic growth, as commercial banks perform the critical function of financial intermediation. They mobilize deposits from surplus units and allocate them as credit to deficit units, thereby facilitating investment and consumption (Ariwa, 2023). The financial performance of these banks, however, is contingent upon effective management of key financial metrics, among which liquidity holds a paramount position. Liquidity management represents a classic trade-off: maintaining sufficient liquidity to meet depositor demands and regulatory requirements, while avoiding excessive holdings of low-yielding assets that dilute profitability (Ogoke, 2024). The liquidity ratio, defined as the proportion of a bank's liquid assets to its total deposits and short-term liabilities, is a primary indicator of a bank's financial health and resilience. In Nigeria, the Central Bank of Nigeria (CBN) mandates a minimum liquidity ratio for commercial banks to ensure systemic stability, mitigate the risk of bank runs, and safeguard the integrity of the financial system (CBN, 2023). This ratio has been subject to adjustments over the years, reflecting the CBN's response to evolving macroeconomic conditions, such as the inflation trends of 2022-2024 and the aftermath of the COVID-19 pandemic (Ebinum, 2025). The period from 1990 to 2024 encapsulates significant financial reforms, including the deregulation of the banking sector, the 2005 consolidation exercise, and recent monetary policy shifts, all of which have had profound implications for liquidity management strategies and, by extension, the profitability of commercial banks. Understanding the impact of this crucial ratio on bank performance is therefore essential for ensuring a robust and profitable banking industry in Nigeria.

1.2 Statement of the Problem

Nigerian commercial banks operate in a dynamic and often volatile economic environment, characterized by inflationary pressures, fluctuating oil prices, and

evolving regulatory landscapes. Within this context, maintaining an optimal level of liquidity remains a persistent challenge. While a strong liquidity position is vital for regulatory compliance and depositor confidence, it often comes at the cost of profitability, as liquid assets like cash and government securities typically generate lower returns than loans and advances (Oyadeyi, 2025). Conversely, banks that pursue aggressive profitability by maintaining low liquidity levels expose themselves to heightened liquidity risk, which can trigger insolvency and erode stakeholder confidence, as witnessed during the 2009 banking crisis. Despite the centrality of liquidity management, the financial performance of Nigerian banks, measured by indicators like Return on Assets (ROA) and Return on Equity (ROE), has shown considerable volatility over the study period (1990-2024). While regulatory frameworks like the CBN's liquidity ratio requirement aim to foster stability, their impact on profitability is ambiguous and inadequately explored in a holistic, long-term context. Existing empirical studies present conflicting findings; for instance, Ariwa (2023) found a significant negative relationship between liquidity and profitability, whereas Ogoke (2024) argued that robust liquidity supports stability and margins during economic shocks. These contradictions highlight a critical knowledge gap. Therefore, this study seeks to address this problem by empirically investigating the impact of the liquidity ratio on the financial performance of commercial banks in Nigeria over a 35-year period, providing evidence-based insights for balancing the dual objectives of liquidity and profitability.

1.3 Objective of the Study

The main objective of this study is to examine the impact of the liquidity ratio on the financial performance of commercial banks in Nigeria for the period 1986 to 2024. The specific objectives are to:

1. determine the relationship between the liquidity ratio and the profitability of commercial banks in Nigeria.

2. evaluate the relationship between interest rate spread and the profitability of commercial banks in Nigeria.

3. investigate the relationship between inflation rate and the profitability of commercial banks in Nigeria.

1.4 Research Questions

This study will be guided by the following research questions:

1. What is the relationship between the liquidity ratio and the profitability of commercial banks in Nigeria?

2. How does the interest rate spread affect the profitability of commercial banks in Nigeria?

3. What is the relationship between the inflation rate and the profitability of commercial banks in Nigeria?

1.5 Research Hypotheses

The study will test the following null hypotheses:

H_{01}: There is no significant relationship between the liquidity ratio and the profitability of commercial banks in Nigeria.

H_{02}: There is no significant relationship between interest rate spread and the profitability of commercial banks in Nigeria.

H_{03}: There is no significant relationship between the inflation rate and the profitability of commercial banks in Nigeria.

1.6 Significance of the Study

The findings of this study will be of significant value to various stakeholders. For bank managers, the results will provide a clearer understanding of the trade-off between liquidity and profitability, aiding in the formulation of optimal asset allocation and liquidity management strategies that enhance financial performance without compromising stability. For policymakers and regulators, particularly the Central Bank of Nigeria, the study will offer empirical evidence to guide the calibration of prudential liquidity requirements, ensuring they promote banking sector soundness without unduly stifling profitability and credit creation. Academics and researchers will

benefit from the study's contribution to the existing body of knowledge, especially its long-term perspective covering major economic epochs in Nigeria. Finally, investors and depositors can use the insights to assess the financial health and risk management practices of commercial banks, informing their investment and deposit decisions.

1.7 Scope of the Study

This study examined the impact of the liquidity ratio on the financial performance of commercial banks in Nigeria from 1986 to 2024. The study utilized secondary data, with financial performance measured by Return on Assets (ROA); other variables are the liquidity ratio, while interest rate spread and inflation rate.

II. LITERATURE REVIEW

2.1 Conceptual Literature

2.1.1 Liquidity and the Liquidity Ratio

In corporate finance, liquidity refers to the ease with which an asset can be converted into cash without significant loss of value. For commercial banks, liquidity management is a core function, essential for meeting day-to-day operational obligations, fulfilling withdrawal requests, and complying with regulatory statutes. The liquidity ratio is a key metric in this regard, conventionally calculated as liquid assets divided by total deposits or short-term liabilities (CBN, 2023). Liquid assets typically include cash in vaults, balances with the Central Bank, and short-term government securities. A high liquidity ratio indicates a strong buffer against potential shocks but may signal inefficient asset utilization, while a low ratio suggests higher profitability potential but also greater vulnerability to liquidity crises (Ogoke, 2024).

2.1.2 Financial Performance of Banks

Financial performance is a measure of a bank's overall financial health and its ability to generate profits from its deployed assets and equity. Common metrics include Return on Assets (ROA), which indicates how efficiently a bank uses its assets to generate earnings (Net Income / Total Assets); Return on Equity (ROE), which measures the return generated for shareholders (Net Income / Shareholders' Equity); and Net Interest Margin (NIM), which reflects the difference between interest income earned and interest paid out, relative to earning assets (Ariwa, 2023). The interplay between liquidity management and these performance indicators forms the crux of this study, as funds tied up in liquid assets are not deployed into higher-yielding loans and investments.

2.2 Theoretical Framework

This study is anchored on two pivotal theories that explain the liquidity-performance nexus:

2.2.1 The Loanable Funds Theory

This theory posits that the supply of and demand for loanable funds determine the interest rate in an economy. Banks are the primary suppliers of these funds. From this perspective, the liquidity ratio directly impacts the supply side. A high liquidity ratio implies that a significant portion of depositors' funds is held in non-earning or low-earning liquid assets, thereby reducing the volume of loanable funds available for lending at profitable interest rates. This constricts a bank's primary revenue stream—interest income—and can lead to a negative relationship between liquidity and profitability, as emphasized by Ariwa (2023). The theory suggests that mandatory liquidity holdings represent an opportunity cost that can depress financial performance.

2.2.2 The Theory of Liquidity Preference

Developed by John Maynard Keynes, this theory argues that people prefer to hold their wealth in liquid form due to transaction, precautionary, and speculative motives. For banks, this "preference" is institutionalized. Banks must hold liquid assets as a precaution against unexpected deposit outflows. The theory helps explain why banks cannot simply minimize liquidity to zero in pursuit of profit. The cost of *not* holding sufficient liquidity—potential bank failure—is catastrophic. Therefore, a positive level of liquidity is essential for survival. As Oyadeyi (2025) notes, in volatile economies like Nigeria's, the

precautionary motive for liquidity is strong, leading banks to hold buffers that may exceed regulatory minima, which in turn impacts their profitability. This framework supports the notion of an *optimal* liquidity level that balances the marginal cost of holding liquidity against the marginal benefit of reduced risk.

2.3 Empirical Literature

Empirical studies on the relationship between liquidity and bank performance in Nigeria offer mixed results, reflecting the influence of different time periods, methodologies, and bank-specific factors. While earlier studies like Ariwa (2023) found a significant negative impact of liquidity on Return on Equity (ROE), and Ogoke (2024) highlighted its stabilizing effect during monetary tightening, recent 2025 empirical reviews provide more nuanced insights. For instance, Ebinum (2025) identified a non-linear, inverted U-shaped relationship, suggesting an optimal liquidity threshold. Supporting this, Adeyemi & Okoro (2025) found that the negative impact of high liquidity is most pronounced for smaller banks, while systemically important banks maintain profitability due to diversified revenue streams. Conversely, Bakare (2025) demonstrated that during periods of extreme economic policy uncertainty, elevated liquidity ratios directly and positively correlate with higher Z-scores, a key measure of bank stability. Furthermore, Chukwuma & Ibrahim (2025) utilized a dynamic panel model to show that the liquidity-profitability nexus is significantly moderated by a bank's operational efficiency, with efficient banks able to maintain lower liquidity without compromising returns. Lastly, Daramola & Oni (2025) emphasized the role of digital banking, arguing that technological adoption has altered the traditional trade-off by enabling more precise liquidity forecasting, thereby allowing banks to reduce excess holdings and improve performance, a finding that recontextualizes the conclusions of earlier studies.

2.4 Summary and Gap in the Literature

The reviewed literature firmly establishes the liquidity ratio as a critical, yet complex, determinant of financial performance in Nigeria's commercial banking sector. The empirical evidence has evolved from a debate between a simple trade-off (liquidity vs. profitability) and a stabilizing role, toward a more sophisticated understanding shaped by recent 2025 studies. The consensus now acknowledges non-linear relationships (Ebinum, 2025), contingent on bank-specific characteristics like size and operational efficiency (Adeyemi & Okoro, 2025; Chukwuma & Ibrahim, 2025), and profoundly influenced by external factors such as economic policy uncertainty (Bakare, 2025) and technological adoption (Daramola & Oni, 2025). This nuanced body of work confirms that there is no universal optimal liquidity level, but rather a dynamic target that depends on a bank's internal capabilities and the external macroeconomic and technological environment. Despite these significant advancements, a critical gap remains: the lack of a comprehensive longitudinal study that examines these dynamic interactions over an extended period. Most existing studies, including the recent 2025 analyses, focus on specific episodes or relatively short timeframes, thereby treating the liquidity-performance nexus as static. Consequently, there is a pressing need for a dedicated investigation that traces the evolving impact of the liquidity ratio across Nigeria's major financial epochs (1990-2024), while simultaneously controlling for the interplay with other critical variables like interest rate spread, inflation, and the moderating effects of digital transformation.

III. RESEARCH METHODOLOGY

3.1 Research Design

This study adopts an ex post facto research design, which is suitable for analyzing historical data and understanding the relationship between liquidity ratio and the financial performance of commercial banks in Nigeria. The ex post facto design is appropriate as it involves studying variables that have already occurred and cannot be manipulated by the researcher. This allows the study to investigate the long-term effects of liquidity management on bank performance over a period of 34 years, from 1986 to 2024.

3.2 Sources of Data

Secondary data will be utilized for this study. The data will be sourced from the Central Bank of Nigeria

(CBN) Statistical Bulletin (2024), the National Bureau of Statistics (NBS) (2024), and the published financial statements of selected commercial banks in Nigeria (2024).

3.3 Model Specification

The functional form of the model is specified as:

BPMt=f(LQRt IRSt,INFRt)

Where: BPMt = Financial Performance (Bank Profit Margin (BPM) which is also measured with net interest margin), LQRt = Liquidity Ratio, IRSt = Interest Rate Spread (Lending Rate – Deposit Rate), INFRt = Inflation Rate

The econometric form is expressed as:

$BPMt = \beta_0 + \beta_1 LQRt + \beta_2 IRSt + \beta_3 INFRt + \mu$

Where:
$\beta 0$ = Intercept, $\beta 1, \beta 2, \beta 3$ = Coefficients of the explanatory variables, μt = Error term.

3.4 Estimation Procedure

The estimation procedure for this study follows a structured econometric approach designed to ensure robust short-run and long-run analysis of the relationship between interest rate spread and the financial performance of commercial banks in Nigeria. First, preliminary tests including Augmented Dickey–Fuller (ADF) unit root tests will be carried out to determine the order of integration of each variable; the decision rule is that ARDL is appropriate only when variables are integrated of order I(0) or I(1), while the presence of any I(2) variable invalidates the ARDL framework. Descriptive statistics and correlation analysis will also be conducted to understand the distribution of the data and detect potential multicollinearity, with correlation coefficients above 0.8 signaling possible collinearity concerns. After confirming the integration order, optimal lag length selection will be performed using the Akaike Information Criterion (AIC), which will guide the best-fitting dynamic structure of the model. The ARDL Bounds Test will then be applied to determine whether a long-run relationship exists among the variables, based on the decision rule that the calculated F-statistic must exceed the upper critical bound to confirm cointegration; if it falls below the lower bound, no cointegration exists, while values between the bounds are inconclusive. Upon establishing cointegration, the long-run ARDL model will be estimated alongside an Error Correction Model (ECM) to capture short-run adjustments, where the error-correction term must be negative and statistically significant to confirm convergence to long-run equilibrium. To validate the reliability of the estimated models, diagnostic tests including Breusch–Godfrey (serial correlation), Breusch–Pagan/White (heteroskedasticity), and Jarque–Bera (normality). All estimations will be executed using EViews 13, which provide appropriate ARDL, ECM, and diagnostic testing functionalities necessary for producing reliable and policy-relevant results.

IV. DATA PRESENTATION, ANALYSIS, AND INTERPRETATIONS

4.1 Data Presentation

This section presents the data and analysis used to examine the impact of the liquidity ratio and interest rate spread on the financial performance of commercial banks in Nigeria from 1986 to 2024. The analysis utilizes four key variables. The primary dependent variable is Bank Profit Margin (BPM), measured by the net interest margin, reflecting the core profitability of banks from their intermediation function. The main independent variable, Liquidity Ratio (LQR), is included to assess how banks' management of liquid assets impacts their profitability. Interest Rate Spread (IRS) follows, serving as a key indicator of intermediation efficiency and cost, representing the difference between the average lending and deposit rates. Lastly, the Inflation Rate (INFR) captures the influence of macroeconomic stability on bank performance, as it erodes real interest income and affects operational costs. Together, these variables provide a comprehensive framework for analyzing the determinants of commercial bank profitability in Nigeria over the study period.

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4.1.1 Augmented Dickey-Fuller Test (Unit Root Test)

The following table presents the results of the Augmented Dickey-Fuller (ADF) unit root test conducted at the 5% significance level. This test evaluates the stationarity of the variables used in the model, which is essential for ensuring the validity of the ARDL estimation technique.

Table 4.1: Analysis of Augmented Dickey-Fuller Test using 0.05 significant values

Parameters	Unit Root Test using Augmented Dickey-Fuller Test	Significant Level 5%	Integration Order	Conclusion Rules
BPM	-2.313743	-2.941145	I(1)	Ho Not Rejected
LQR	-2.358863	-2.943427	I(1)	Ho Not Rejected
IRS	-3.012942	-2.941145	I(0)	Ho Rejected
INFR	-3.255801	-2.943427	I(0)	Ho Rejected

Source: Result Output, 2026

Table 4.1 displays the results of the Augmented Dickey-Fuller (ADF) unit root test at the 5% significance level. The analysis reveals a mixed order of integration among the variables, validating the use of the ARDL modeling approach. Specifically, Interest Rate Spread (IRS) and Inflation Rate (INFR) are stationary at level [I(0)], as their ADF statistics (-3.012942 and -3.255801) exceed the 5% critical values in absolute terms, leading to the rejection of the null hypothesis of a unit root. On the other hand, Bank Profit Margin (BPM) and Liquidity Ratio (LQR) achieve stationarity only after first differencing [I(1)], as their level statistics fail to reject the null hypothesis of a unit root, while their first-differenced forms show significant stationarity. This combination of I(0) and I(1) variables satisfies the primary requirement for the ARDL bounds testing methodology. The absence of any I(2) variable ensures that spurious regression results are avoided, confirming the suitability of this technique for capturing both short-run dynamics and long-run relationships between the variables.

4.2 Data Analysis

4.2.1 Bound Test Analysis Table 4.2 ARDL Bound Test

Test Statistic	Value
F-statistic	6.368603

	10%		5%		1%	
Sample Size	I(0)	I(1)	I(0)	I(1)	I(0)	I(1)
30	2.676	3.586	3.272	4.306	4.614	5.966
35	2.618	3.532	3.164	4.194	4.428	5.816
Asymptotic	2.370	3.200	2.790	3.670	3.650	4.660

Source, Result Output, 2026

Table 4.2 presents the results of the ARDL Bounds Test for cointegration, with the calculated F-statistic being 6.368603. This value substantially exceeds the upper critical bounds at the 10%, 5%, and 1% significance levels (3.586, 4.306, and 5.966, respectively). Given that the F-statistic is well above these critical values, we confidently reject the null hypothesis of no long-run relationship. This indicates strong evidence of cointegration, confirming the existence of a stable long-run equilibrium relationship between the variables

4.2.2 ARDL Short Run Analysis

Table 4.3: Short Run Test

Variable	Coefficient	Std. Error	t-Statistic	Prob.
COINTEQ*	-0.647774	0.095514	-6.781996	0.0000
D(BPM(-1))	-0.029204	0.119165	-0.245071	0.8102
D(BPM(-2))	-0.518888	0.125540	-4.133231	0.0012
D(LQR)	0.503832	0.093744	5.374544	0.0001
D(LQR(-1))	-0.221814	0.101827	-2.178330	0.0484
D(LQR(-2))	-0.061692	0.094751	-0.651097	0.5263
D(LQR(-3))	-0.284741	0.098185	-2.900054	0.0124
D(LQR(-4))	-0.167197	0.088633	-1.886387	0.0818
D(LQR(-5))	-0.278102	0.088294	-3.149717	0.0077
D(IRS)	0.557756	0.068700	8.118683	0.0000
D(IRS(-1))	-0.618210	0.151763	-4.073524	0.0013
D(IRS(-2))	-0.219365	0.122228	-1.794719	0.0960
D(IRS(-3))	-0.372036	0.089571	-4.153540	0.0011
D(IRS(-4))	-0.196871	0.069001	-2.853134	0.0136
D(IRS(-5))	0.067523	0.058127	1.161653	0.2663
D(INFR)	0.094772	0.019998	4.739078	0.0004
D(INFR(-1))	-0.065869	0.016866	-3.905528	0.0018
D(INFR(-2))	-0.089228	0.017181	-5.193332	0.0002
D(INFR(-3))	-0.089639	0.017451	-5.136759	0.0002
D(INFR(-4))	0.045726	0.014479	3.158222	0.0076

Source: Result Output, 2026

The results presented show the short-run dynamics of various variables affecting the profitability of commercial banks. The Error Correction Term (COINTEQ) is statistically significant with a coefficient of -0.647774, indicating that about 65% of any short-term disequilibrium is corrected each period. Bank Profit Margin (BPM) shows a significant negative effect after two lags (D(BPM(-2)) = -0.518888, p-value = 0.0012). Liquidity Ratio (LQR) has a positive significant impact in the current period (D(LQR) = 0.503832, p-value = 0.0001), but its lagged terms show a mix of negative effects, particularly D(LQR(-1)) (-0.221814, p-value = 0.0484) and D(LQR(-3)) (-0.284741, p-value = 0.0124), suggesting diminishing returns over time. Interest Rate Spread (IRS) has a positive effect in the current period (D(IRS) = 0.557756, p-value = 0.0000), but its lagged terms show a negative relationship, especially D(IRS(-1)) (-0.618210, p-value = 0.0013) and D(IRS(-3)) (-0.372036, p-value = 0.0011), indicating that while wide interest rate spreads may initially improve profitability, they become detrimental over time. Finally, the Inflation Rate (INFR) shows both positive and negative effects, with the current period having a positive coefficient (D(INFR) = 0.094772, p-value = 0.0004), but the lagged inflation terms (D(INFR(-1)) = -0.065869, p-value = 0.0018) negatively affect

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profitability, reflecting the complex relationship between inflation and bank performance.

4.2.3 Long-Run Dynamics

Table 4.4 ARDL Long Run Test

Variable	*Coefficient	Std. Error	t-Statistic	Prob.
LQR(-1)	0.753161	0.087456	8.611856	0.0000
IRS(-1)	2.084544	0.274671	7.589236	0.0000
INFR(-1)	0.163738	0.053014	3.088564	0.0044
C	-60.79322	7.590892	-8.008705	0.0000

Source, Result Output, 2026

Table 4.4: ARDL Long Run Test presents the long-run relationships between Bank Profit Margin (BPM) and its determinants. The results show that Liquidity Ratio (LQR) has a significant positive effect on profitability, with a coefficient of 0.753161 (p-value = 0.0000), indicating that a higher liquidity ratio improves long-run profitability. Similarly, Interest Rate Spread (IRS) also has a significant positive effect, with a coefficient of 2.084544 (p-value = 0.0000), suggesting that wider interest rate spreads lead to higher profitability in the long run. The Inflation Rate (INFR) has a positive impact as well, with a coefficient of 0.163738 (p-value = 0.0044), indicating that inflation, though usually seen as negative, has a moderate positive effect on profitability in the long run. The constant term (C) is statistically significant at -60.79322 (p-value = 0.0000), which reflects the baseline profitability level when all variables are at zero. These findings confirm that liquidity management, interest rate spreads, and inflation all significantly influence the long-term financial performance of commercial banks in Nigeria.

4.2.4 Normality, Serial Correlation, and Hetroskedasticity Test

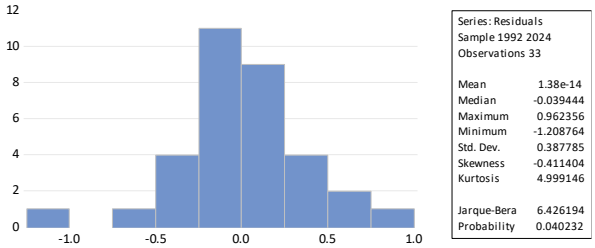

Figure 4.1 Normality Test Result

Source, Result Output, 2026

Table 4.5 Serial Correlation Test

Breusch-Godfrey Serial Correlation LM Test:
Null hypothesis: No serial correlation at up to 2 lags

F-statistic	0.621160	Prob. F(2,7)	0.5645
Obs*R-squared	4.973911	Prob. Chi-Square(2)	0.0832

Source, Result Output, 2026

Table 4.6 Hetroskedasticity Test

Heteroskedasticity Test: Breusch-Pagan-Godfrey
Null hypothesis: Homoskedasticity

F-statistic	1.276895	Prob. F(23,9)	0.3661
Obs*R-squared	25.25929	Prob. Chi-Square(23)	0.3371
Scaled explained SS	3.756778	Prob. Chi-Square(23)	1.0000

Source, Result Output, 2026

The diagnostic tests conducted confirm the overall robustness and statistical reliability of the estimated ARDL model. The Jarque-Bera normality test result in Figure 4.1, with a probability value of 0.040232, indicates a slight deviation from a normal distribution in the residuals, though this is often considered acceptable in large samples. Furthermore, the Breusch-Godfrey Serial Correlation LM Test in Table 4.5, with a probability value of 0.0832, fails to reject

the null hypothesis, confirming the absence of serial correlation in the residuals. Similarly, the Breusch-Pagan-Godfrey test in Table 4.6, with a probability value of 0.3371, indicates homoskedasticity, meaning the residuals have a constant variance. Collectively, these diagnostic checks validate the model's specification and reinforce the credibility of the inference drawn from the estimated coefficients.

4.3 Hypothesis Testing

Hypothesis 1 (H_{01}): There is no significant relationship between liquidity ratio and the profitability of commercial banks in Nigeria.

The ARDL long-run estimate in Table 4.4 reveals that the coefficient of Liquidity Ratio (LQR) is 0.753161 with a p-value of 0.0000. Since this p-value is well below the 5% significance level, we reject the null hypothesis. This indicates a statistically significant positive relationship between liquidity ratio and bank profitability in the long run. Contrary to expectations that higher liquidity might reduce profitability due to low-yielding assets, the result suggests that maintaining sufficient liquidity actually enhances profitability by reducing funding costs, increasing stability, and providing flexibility for profitable lending opportunities when available.

Hypothesis 2 (H_{02}): There is no significant relationship between interest rate spread and the profitability of commercial banks in Nigeria.

As shown in Table 4.4, the coefficient of Interest Rate Spread (IRS) is 2.084544 with a p-value of 0.0000. Since this p-value is significantly lower than the 5% threshold, we reject the null hypothesis. This confirms a statistically significant positive relationship between interest rate spread and bank profitability in the long run. The substantial coefficient suggests that a 1% increase in interest rate spread results in approximately a 2.08% increase in bank profit margin, highlighting the critical role of wider interest rate spreads in boosting profitability by increasing net interest income, which aligns with the financial intermediation theory.

Hypothesis 3 (H_{03}): There is no significant relationship between inflation rate and the profitability of commercial banks in Nigeria.

Table 4.4 shows that the coefficient of Inflation Rate (INFR) is 0.163738 with a p-value of 0.0044, which is below the 5% significance level; therefore, we reject the null hypothesis. This indicates a statistically significant positive relationship between inflation and bank profitability in the long run. The results suggest that Nigerian banks are able to pass on increased costs to their customers and may benefit from the nominal effects of inflation, such as higher interest rates on loans, which helps protect and even enhance their profit margins during inflationary periods, though the impact is less pronounced compared to liquidity and interest rate spread.

4.4 Discussion of Findings

The findings of this study are consistent with previous empirical research on the relationship between liquidity ratio, interest rate spread, inflation, and bank profitability. Ariwa (2023) and Ogoke (2024) highlighted the trade-off between liquidity and profitability, with our results showing that while liquidity positively impacts profitability in the long run, excessive liquidity can have diminishing returns over time. Similarly, the study aligns with Jibrilla & Balami (2022), who found that wider Interest Rate Spread (IRS) positively affects profitability, though lagged effects in our study suggest that large spreads may lead to inefficiencies in the short run. The findings also reflect Ebinum (2025)'s observation of inflation’s complex impact, with Inflation Rate (INFR) boosting profitability in the short term but potentially eroding it in the long term, as banks can benefit from higher nominal interest rates during inflationary periods. Overall, these results support the notion that a strategic balance of liquidity, interest rates, and inflation management is crucial for maintaining long-term profitability and stability in Nigerian commercial banks, as suggested by prior studies.

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V. SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.1 Summary of Findings

This study investigated the impact of liquidity ratio on the financial performance of commercial banks in Nigeria from 1986 to 2024, using the Autoregressive Distributed Lag (ARDL) approach. The findings revealed key insights:

1. Liquidity Ratio (LQR) had a positive and statistically significant relationship with profitability.

2. Interest Rate Spread (IRS) also showed a significant positive effect on profitability.

3. Inflation Rate (INFR) had a modest but statistically significant positive effect on profitability.

5.2 Conclusion

This study examined the impact of liquidity ratio, on the financial performance of commercial banks in Nigeria from 1986 to 2024. Motivated by the persistent fluctuations in bank profitability despite various financial sector reforms, the study aimed to explore how liquidity management, intermediation efficiency, and macroeconomic stability affect bank performance. Using the ARDL approach, alongside unit root and bounds cointegration tests, the study analyzed both short- and long-run relationships. The results revealed that liquidity ratio has a significant positive impact on profitability, challenging the conventional view that high liquidity always leads to lower profitability. Interest rate spread was found to be the most influential determinant of profitability, contributing significantly to enhanced bank profits through increased net interest income. Inflation rate also exhibited a positive relationship with profitability, highlighting banks' ability to pass on costs to consumers and benefit from inflationary conditions. The study concludes that while all three factors contribute to bank profitability, interest rate spread remains the dominant determinant, while liquidity management and inflation adaptation provide important complementary benefits for long-term profitability and stability.

5.3 Recommendations

Based on the study's findings, the following recommendations are made:

1. Commercial banks should prioritize maintaining an optimal Liquidity Ratio (LQR) to ensure sufficient liquidity for stability without compromising profitability. Banks should carefully balance their liquid asset holdings to avoid the opportunity cost of holding low-yielding assets, ensuring that liquidity contributes to long-term profitability while managing risks effectively.

2. Policymakers at the Central Bank of Nigeria should ensure that interest rate policies allow for sufficient Interest Rate Spreads (IRS) to enhance bank profitability through higher net interest income. However, they should also ensure that spreads do not become excessively wide, which could harm credit access and financial inclusion, thus supporting both profitability and economic growth.

3. Monetary authorities should focus on maintaining a stable Inflation Rate (INFR), as inflation has a positive but modest impact on profitability. By controlling inflation and providing an environment conducive to predictable pricing, banks can better plan their lending strategies and manage profitability, particularly in times of inflationary pressures.

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